

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

TYPE DESIGNATIONS FOR *DICLADIA* (EBRIACEAE),
PERIPTERA (BACILLARIOPHYCEAE), *GYMNOCELLA*,
PHAEODACTYLIS AND *PHAEOSPHAERA*
(RADIOLARIA)

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In preparation of the forthcoming Treatise on Invertebrate Paleontology, Part B. Protista 1, Index Nominum Genericum and an annotated index to fossil and Recent silicoflagellates and ebridians, several genera of microscopic marine organisms were found to lack type species. Type designations are given here for those genera.

Dicladia Ehrenberg, 1844

Dicladia (Ebriaceae) was described by Ehrenberg in 1844 (a, p. 73) with four included species: *D. capra* Ehrenberg (1844a, pp. 69, 79), *D. capreolus* Ehrenberg (1844a, pp. 69, 79), *D.?* *clathrata* Ehrenberg (1844a, pp. 70, 79) and *D. cervus* Ehrenberg (1844a, pp. 69, 79). *Dicladia* was not originally typified and has not been lectotypified. Ehrenberg in 1844(c) transferred *Dicladia capra* and *D. cervus* to the genus *Periptera*. One of the remaining species *D. capreolus* is based on a resting spore of a species of *Chaetoceros* Ehrenberg (1844b). If *D. capreolus* were to be designated as type, *Dicladia* would be a senior synonym of *Chaetoceros*. If *Dicladia clathrata*, the other originally included species, were designated as the type species of *Dicladia*, this genus would be a senior synonym of *Parathranium* Hovasse (1932). Considering the great number of species in the genus *Chaetoceros* as compared to only eight in *Parathranium*, it would be wiser to pick *Dicladia clathrata* as the type of *Dicladia*, since fewer species would have to be transferred to *Dicladia*. *Dicladia clathrata* Ehrenberg is here designated, therefore, as the type of *Dicladia* Ehrenberg. *Dicladia clathrata* was first illustrated by Ehrenberg (1854) in his *Mikrogeologie* (pl. 18, fig. 100). With *D. clathrata* as type species, *Dicladia* Ehrenberg is now a senior synonym of *Parathranium* Hovasse (1932).

Periptera Ehrenberg, 1844

Periptera, described by Ehrenberg in 1844 (c, p. 263), included the following species: *P. tetracladia* Ehrenberg (1844c, pp. 259, 270), *P. chlamidophora* Ehrenberg (1844c, pp. 259, 271), *P. capra* (Ehrenberg) Ehrenberg (1844c, p. 271, basionym: *Dicladia capra* Ehrenberg, 1844a, pp. 69, 79) and *P. cervus* (Ehrenberg) Ehrenberg (1844c, p. 271, basionym: *Dicladia cervus* Ehrenberg, 1844a, pp. 69, 79). As none of the above-named species has been selected as type, *Periptera tetracladia* Ehrenberg is here designated as the type species of *Periptera* Ehrenberg. *Periptera tetracladia* was first figured by Ehrenberg (1854) in his *Mikrogeologie* (pl. 33, xviii, fig. 9). *Periptera* Ehrenberg (Bacillariophyceae), is a junior homonym of *Periptera* Decandolle (1824, Malvaceae), but as it apparently represents resting spores of a species of *Chaetoceros* Ehrenberg (1844b), it is not renamed.

Gymnocella gen. nov.

Gymnocella (Radiolaria) was proposed by Cachon-Enjumet (1961, p. 220), with two included species: *G. helicoidalis* Cachon-Enjumet (1961, p. 222, pl. 7, fig. h, pl. 10, figs. a, b, pl. 18, figs. c, d, e, g) and *G. tregouboffi* Cachon-Enjumet (1961, p. 221, pl. 7, fig. i, pl. 9, fig. d, pl. 10, figs. c, d, e, pl. 16, fig. j, pl. 18, figs. a, b, f). Because no type species was designated by Cachon-Enjumet, the genus is invalid (International Code of Zoological Nomenclature (ICZN), Art. 13(b)). *Gymnocella* gen. nov. is here validated by the designation of *Gymnocella tregouboffi* Cachon-Enjumet (1961) as its type species. The generic diagnosis of *Gymnocella* is given in Cachon-Enjumet (1961, p. 220).

Phaeodactylis gen. nov.

Phaeodactylis (Radiolaria) was proposed by Cachon-Enjumet (1961, p. 208) with seven included species: *P. fagei* Cachon-Enjumet (1961, p. 211, pl. 12, fig. f, pl. 16, fig. d), *P. hollandei* Cachon-Enjumet (1961, p. 210, pl. 5, fig. a, pl. 12, fig. e, pl. 13, fig. d, pl. 16, figs. a-c), *P. mediterranea* Cachon-Enjumet (1961, p. 210, pl. 12, figs. g, h), *P. micropyla* Cachon-Enjumet (1961, p. 209, pl. 12, fig. c, pl. 15, figs. j, k), *P. nematophora* Cachon-Enjumet (1961, p. 209, pl. 12, fig. d, pl. 15, fig. 1), *P. radiata* Cachon-Enjumet (1961, p. 211, pl. 17, figs. g, h) and *P. stellaria* Cachon-Enjumet (1961, p. 209, pl. 12, fig. b, pl. 15, fig. m, n). No type species was designated for *Phaeodactylis* by Cachon-Enjumet; hence the genus is invalid (ICZN Art. 13(b)). *Phaeodactylis* gen. nov. is here validated by designation of a type species: *Phaeodactylis hollandei* Cachon-Enjumet (1961). The generic diagnosis for *Phaeodactylis* is in Cachon-Enjumet (1961, p. 208).

Cachon-Enjumet (1961) described *Phaeodactylis micropyla* on p. 209, and spelled it as *P. micropila* on p. 237. *Phaeodactylis micropyla* is here selected as the valid original spelling.

Phaeosphaera gen. nov.

Phaeosphaera (Radiolaria) was proposed by Cachon-Enjumet (1961, p. 205), with two included species: *P. nucleolongata* Cachon-Enjumet (1961, p. 206, pl. 9, fig. h, pl. 11, figs. d, e, pl. 13, fig. a, pl. 15, fig. d, pl. 16, fig. f), and *P. pigmaea* (Borgert) Cachon-Enjumet (1961, p. 206, basionym: *Phaeocola pigmaea* Borgert, 1909, p. 288, pl. 22, fig. 1). Neither of these two species was designated as type species; thus the genus is invalid (ICZN Art. 13(b)). *Phaeosphaera* gen. nov. is here validated by designation of *P. nucleolongata* Cachon-Enjumet as its type species. A diagnosis for *Phaeosphaera* gen. nov. is found in Cachon-Enjumet (1961, p. 205).

I would like to acknowledge Dr. A. R. Loeblich, Jr. (California Research Corporation, La Habra, California) Dr. G. F. Papenfuss (University of California, Berkeley), and Dr. Helen Tappan (University of California, Los Angeles) for critically reading the manuscript.

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